

Evergreen Spectra™ 233 Processor Upgrade for Pentiums

IDT WinChip 2™ version

Frequently Asked Questions (FAQ)

Version 3.1, 06/04/99



Frequently Asked Questions Compatibility

Q. Will the Evergreen Spectra 233 work in my system?

A. The Evergreen Spectra 233 supports 95% of single processor 75 MHz and higher speed Pentium® processor-based systems

Q. Can the Spectra 233 be used for 60 and 66 MHz Pentium® processor based systems?

A. No. The 60 and 66 MHz systems use a socket style that is not supported by the Evergreen Spectra.

Q. Is the Spectra 233 Socket 5, Socket 7 and Super7™ compatible?

A. Yes. The majority of the Pentium systems utilize the Socket 5 and 7 platforms. The Spectra 233 also supports motherboards based on the newer Super7 platform, running with a 66 MHz bus speed.

Q. What does Socket 7 and Super7 mean?

A. Socket 7 systems support both 3.3-3.6 volt, and the newer voltage requirements of newer Pentium processors. The Spectra uses 3.3 to 3.6 volts, which is supported by all Pentium processor-based systems

The Super7 is an enhanced Socket 7 platform that adds support for AGP (Accelerated Graphics Port) and the high-performance, 100 MHz system bus. The 100 MHz bus can access level 2 cache and main memory up to 50% faster, increasing system performance.

Q. What is split-rail voltage?

A. Split-rail is a term used to describe the newer CPUs with two voltage requirements one for the CPU Core and one for the input/output portions of the CPU. The Spectra 233 is designed to work with systems 75 MHz and higher speed Pentium processors.

Q. Why can't I just buy an Intel or other MMX™ CPU and plug it directly into my system?

A. Intel and other MMX processors are not always compatible with the BIOS and/or motherboard of older systems. Evergreen solves this issue with the Spectra 233 by including a hardware compatibility adapter for all systems and BIOS update software for selected systems.

Q. Will it work with my software?

- A. Yes. The Evergreen Spectra 233 is compatible with all standard PC software. If you run software that has special requirements you should check the software to see if it is supported. Furthermore, the CPU used in the Spectra 233 is fully certified by Microsoft as a Windows[®]-compatible CPU and is certified compatible by XXCAL (www.xxcal.com).

Q. Can the Spectra 233 work in multiprocessor systems?

- A. The Spectra may be compatible with multiprocessor systems in single processor mode. However the Spectra 233 does not support Dual Processor mode.

Q. Which microprocessor is used in the Spectra?

- A. The Evergreen Spectra 233 currently uses the IDT WinChip 2A microprocessor. For more information on this processor, visit http://www.winchip.com/products/winchip2/91_datasheet.html

Q. Who manufactures the microprocessor?

- A. Integrated Device Technology, Inc. (IDT) manufactures the WinChip 2. Founded in 1980, IDT designs and manufactures high-performance integrated circuits for SRAM, communications products, logic and microprocessors. The company is ISO 9000 certified For additional information, please visit <http://www.idt.com/>

Q. Will it fit in my system?

- A. The Evergreen Spectra 233 fits most standard desktop and tower systems. It requires only 1.1 inches of clearance above your original CPU socket.

Q. Can the Evergreen upgrade be used in my portable?

- A. No. The Evergreen Spectra 233 is for desktops only.

Q. Can I do the upgrade myself?

- A. Yes. The Evergreen Spectra 233 is designed to be installed by PC end users. The upgrade installation takes approximately 15 minutes. The Evergreen installation guide has illustrated step-by-step instructions.

Q. How do I remove the original Pentium processor?

- A. Most Pentium processor-based systems have zero-insertion-force (ZIF) sockets that allow you to simply raise a lever to unlock and remove the Pentium processor.

BIOS

Q. How and why does the Spectra 233 upgrade my BIOS?

- A. The BIOS (Basic Input Output System) in many older systems does not support newer CPU architecture such as that used in the Spectra 233. Therefore, Evergreen has developed BIOS updates to support selected older systems and motherboards. The BIOS updates are included in the INSTALL software and should only be used on systems where the INSTALL software recommends its use.

Q. Is the BIOS upgrade “plug and play”?

- A. Since the Spectra 233 only updates your existing BIOS, this depends whether your BIOS already supports plug and play.

Q. Will the BIOS update that accompanies the Evergreen Spectra 233 upgrade make my system Y2K compliant?

- A. No. The BIOS update is only for specific systems and does not change your systems Y2K status.

Q. Can I restore my original BIOS if I have problems?

- A. Yes. The Evergreen INSTALL software makes a backup copy of the original BIOS and has a “restore” function.

Performance

Q. Does the Spectra 233 support 3DNow!™ Technology?

- A. Yes, the Spectra 233 supports this enhanced 3D-instruction set, using the IDT WinChip 2 processor.

Q. What are the benefits of 3DNow! technology?

- A. 3DNow! significantly increases the floating-point performance of three-dimensional intensive graphics and multimedia programs. Working with today’s 3D graphic accelerators, 3DNow! offers brilliant 3D performance, images, graphics, sound, and an enhanced Internet experience. For more information on the 3DNow! technology, please visit <http://www.winchip.com/>

Q. Does the Spectra 233 with 3DNow! technology replace my 3D graphics accelerator card?

- A. No, the Evergreen processor upgrade works with your 3D card to render superior 3D performance.

Q. What types of applications utilize 3DNow! technology?

A. Many software packages, such as games, education and business productivity software utilizes this new technology. For the latest list of products optimized for 3DNow!, please visit http://www.winchip.com/12_softcomp.html

Q. Does the Spectra 233 also support MMX?

A. Yes, the Evergreen Spectra 233 runs software enabled for MMX instructions.

Q. What is MMX?

A. MMX stands for Math Matrix Extensions, commonly called multimedia instructions. This feature has been added to processors to improve performance on multimedia software such as games, graphics, sound and video applications.

Q. What is the difference between 3DNow! technology and MMX technology?

A. The benefit of MMX is improved integer-based multimedia performance. However, it does not enhance floating point intensive 3D applications. 3DNow! includes 21 new instructions to address the needs of emerging 3D applications.

Q. Will this make all software run faster or just software designed specifically for 3DNow! and MMX?

A. The Spectra 233 boosts processor performance for all software, but more noticeably software enabled for 3DNow! and MMX instructions.

Q. What are the recommended upgrade speeds for different speed systems?

A. All 75 MHz to 166 MHz Pentium processorbased systems can be upgraded to the Spectra 233 for a significant performance boost on all software.

Q. Will the Spectra 233 run at full speed in my system?

A. The Spectra 233 will run at full speed in all systems that are set to a 66 MHz bus speed. Although this is the recommended bus speed, the Spectra 233 may work with slower bus speeds, but may not achieve full performance.

Q. What performance improvement can I expect?

A. The Spectra 233 performs like a current multimedia PC in older Pentium processor-based systems. For specific benchmarks, visit <http://www.evertech.com/Spectra/spectraperf.asp>

Q. After installing the Spectra 233 upgrade, the INSTALL disk displays a Mediastone benchmark. What is its purpose? How was it created?

A. Mediastone is a performance and diagnostic tool created by Evergreen software engineers. Its purpose is to test the MMX instruction set of the Evergreen Spectra 233 to show proper functionality and the optimum performance achievable on software instructions in MMX-enabled software.

Ordering

Q. What is the warranty for the Evergreen Spectra 233?

A. Lifetime. For specific warranty information visit
<http://www.evertech.com/spectrawar.asp>

Q. How much does it cost? Where can I buy it?

A. Contact Evergreen at 541-757-0934 or visit our web site at
<http://www.evertech.com/> for ordering information.

Q. How do I contact the Customer Care Center?

A. Evergreen offers technical support through our web site, email, fax, and telephone.
We recommend using Email for non-critical issues.

Home Page: www.evertech.com/support.html

Phone: 541-757-7341

Email: techsupport@evertech.com

Fax: 541-752-9851